

# SG5311 / SG5311(B)

**LED Lamp** 

#### **Features**

- Colorless transparency lens type
- φ5mm(T-13/4) all plastic mold type
- Low power consumption

### **Outline Dimensions** unit: mm **STRAIGHT TYPE** STOPPER TYPE: (B) 4.80~5.20 4.80~5.20 8.40~8.80 8.40~8.80 1.00 Max. 0.05 Typ. 0.05 Typ. 1.00 Max 1.20 Min. 0.50 Max. 0.06 Max 26.00 Min. 26.00 Min. .50 Min. 2.54 Typ. 2.54 Typ. 5.50~6.00 5.60~6.00 55 Max. **PIN Connections** 1. Anode 2. Cathode

KSD-O2O007-000

**Absolute Maximum Ratings** 

(Ta=25℃)

Characteristic	Symbol	Rating	Unit
Power dissipation	P <sub>D</sub>	75	mW
Forward current	${ m I}_{\sf F}$	30	mA
*¹Peak forward current	${ m I}_{\sf FP}$	50	mA
Reverse voltage	$V_R$	4	V
Operating temperature range	$T_{opr}$	-25~85	$^{\circ}$
Storage temperature range	$T_{stg}$	-30~100	$^{\circ}$
*2Soldering temperature	T <sub>sol</sub>	260℃ for 10 seconds	

<sup>\*1.</sup>Duty ratio = 1/16, Pulse width = 0.1ms

<sup>\*2.</sup>Keep the distance more than 2.0mm from PCB to the bottom of LED package



**Electrical / Optical Characteristics** 

 $(Ta=25^{\circ}C)$ 

2

Characteristic	Symbol	<b>Test Condition</b>	Min.	Typ.	Max.	Unit
Forward voltage	$V_{F}$	I <sub>F</sub> = 20mA	-	2.2	2.5	V
Luminous intensity	$I_{V}$	I <sub>F</sub> = 20mA	27	-	155	mcd
Peak wavelength	$\lambda_{P}$	I <sub>F</sub> = 20mA	-	557	-	nm
Spectrum bandwidth	$\Delta_{\lambda}$	I <sub>F</sub> = 20mA	-	25	-	nm
Reverse current	$I_{R}$	V <sub>R</sub> =4V	10	-	-	uA
* <sup>3</sup> Half angle	θ1/2	I <sub>F</sub> = 20mA	-	±11	-	deg

<sup>\*3.</sup>  $\theta$ 1/2 is the off-axis angle where the luminous intensity is 1/2 the peak intensity

<sup>\*4.</sup> Luminous Intensity Classification

I	J K		L	
27 ~ 43	43 ~ 68	68 ~ 100	100 ~ 155	

KSD-O2O007-000

<sup>\*4.</sup> Luminous intensity maximum tolerance for each grade classification limit is  $\pm 18\%$ 

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#### **Characteristic Diagrams**

Fig. 1  $I_F$  -  $V_F$ 

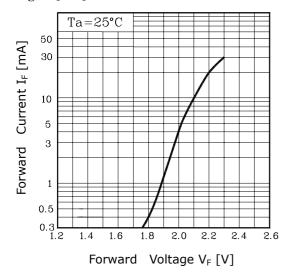


Fig. 2  $I_V$  -  $I_F$ 

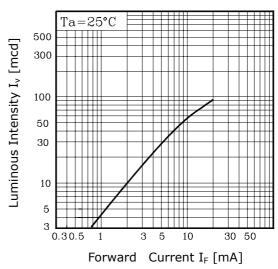
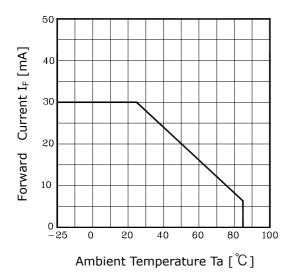


Fig.  $3 I_F - Ta$ 



**Fig.4 Spectrum Distribution** 

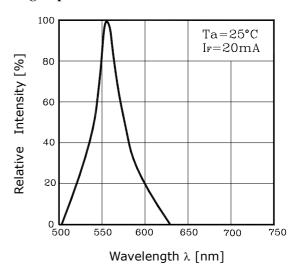
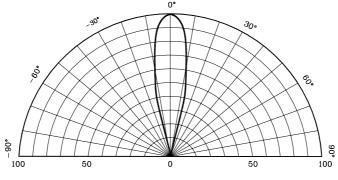


Fig. 5 Radiation Diagram



Relative Luminous Intensity Iv [%]

KSD-O2O007-000 3

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KSD-O2O007-000